

CLAIMS

1. A method for charging a battery, comprising the steps of:
supplying a charging current to a battery;
sensing the charging current to the battery; and
5 selectively signaling an electronic device from the battery to
indicate at least one parameter of the battery as the battery is receiving the
charging current.
2. The method according to claim 1, wherein the charging current
10 is from a wireless charger.
3. The method according to claim 1, wherein the parameter is at
least one of a charging state of the battery and a predetermined current
threshold of the charging current.
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4. The method according to claim 1, wherein the battery signals
the electronic device over an input/output line and wherein the input/output
line is a preexisting reading conductor.
- 20 5. The method according to claim 4, wherein the preexisting
reading conductor is a thermistor line.
6. The method according to claim 1, further comprising the step of
disabling a charging circuit in the electronic device.

7. The method according to claim 1, further comprising the step of updating a charging indicator of the electronic device.

8. The method according to claim 4, wherein the selectively
5 signaling step comprises the step of toggling the input/output line between a high state, a low state and a release state during the signaling step.

9. A method of wirelessly charging a battery, comprising the steps of:

supplying a charging current from a wireless charger to a battery;

5 sensing the charging current;

selectively toggling between high and low states an input/output line between an electronic device and the battery to indicate to the electronic device at least one parameter of the battery as the battery is receiving the charging current.

10. A system for charging a battery, comprising:
a charger; and
a battery, wherein the charger supplies a charging current to the
battery and wherein the battery includes a charging monitor that senses the
5 charging current and selectively signals an electronic device to indicate at
least one parameter of the battery as the battery is receiving the charging
current.

11. The system according to claim 10, wherein the charger is a
10 wireless charger and the charging monitor is a processor.

12. The system according to claim 10, wherein the parameter is at
least one of a charging state of the battery and a predetermined current
threshold of the charging current.

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13. The system according to claim 10, further comprising an
input/output line between the battery and the electronic device, wherein the
charging monitor signals the electronic device over the input/output line and
wherein the input/output line is a preexisting reading conductor.

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14. The system according to claim 13, wherein the preexisting
reading conductor is a thermistor line.

15. The system according to claim 10, wherein the charging monitor causes a charging circuit in the electronic device to be disabled when the charger supplies the charging current to the battery.

5 16. The system according to claim 10, wherein the charging monitor causes a charging indicator of the electronic device to be updated when the charger supplies the charger current to the battery..

10 17. The system according to claim 13, wherein the charging monitor toggles the input/output line between a high state, a low state and a release state when the charging monitor selectively signals the electronic device.

18. A system for wirelessly charging a battery, comprising:
a wireless charger;
15 a battery having a charging monitor; and
an input/output line for coupling between the battery and an
electronic device, wherein the wireless charger supplies charging current to
the battery and wherein the charging monitor selectively toggles between high
and low states the input/output line to indicate to the electronic device at least
20 one parameter of the battery as the battery is receiving the charging current.

19. A battery, comprising:
- a charging circuit for receiving a charging current; and
 - a charging monitor coupled to the charging circuit, wherein the charging monitor senses the charging current received by the charging circuit
- 5 and selectively signals an electronic device to indicate at least one parameter of the battery as the battery is receiving the charging current.

20. An electronic device, comprising:

a processor;

an input/output line coupled to the processor;

a charging circuit; and

5 a charging indicator;

wherein the processor is programmed to detect signals from a battery over the input/output line and in response to the detection of the signals, the processor is further programmed to perform at least one of disabling the charging circuit and updating the charging indicator.

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